

CLAIMS

What is claimed is:

1. A method for monitoring a basestation in a wireless communication network from a location remote to said basestation, said method comprising:
 - acquiring at a monitoring probe arranged local to a basestation measurement data for at least one network link parameter of said basestation, measurement data for at least one wireless link parameter of said basestation, and measurement data for at least one operational parameter of said basestation;
 - formatting said measurement data for said at least one network link parameter, said measurement data for said at least one wireless link parameter, and said measurement data for said at least one operational parameter into a uniform format; and
 - communicating, in said uniform format, said measurement data for said at least one network link parameter, said measurement data for said at least one wireless link parameter, and said measurement data for said at least one operational parameter from said monitoring probe to a processor-based device arranged remote from said basestation.
2. The method of claim 1 wherein said monitoring probe is communicatively coupled to a communication network and wherein said communicating step further comprises said monitoring probe communicating said measurement data to said processor-based device via said communication network.
3. The method of claim 1 wherein said measurement data for at least one network link parameter comprises at least one type of measurement selected from the group consisting of: at least one T1 measurement, and at least one E1 measurement.

4. The method of claim 3 wherein said at least one T1 measurement comprises at least one type of measurement data selected from the group consisting of: Network Bipolar Violations, Network Bipolar Errored Seconds, Network Severely Errored Seconds, Network Unavailable Seconds, Network Excess Zero Seconds, Network Frame Errors, Network Errored Seconds, Network Path Severely Errored Seconds, Network Path Unavailable Seconds, Network Signal Loss, Network Frame Loss, Network Bipolar with eight zero substitution (B8ZS) Detect, Site Bipolar Violations, Site Bipolar Errored Seconds, Site Severely Errored Seconds, Site Unavailable Seconds, Site Excess Zero Seconds, Site Frame Errors, Site Errored Seconds, Site Path Severely Errored Seconds, Site Path Unavailable Seconds, Site Signal Loss, Site Frame Loss, Site B8ZS Detect, and Clock Slips.

5. The method of claim 1 wherein said measurement data for at least one wireless link parameter comprises at least one type of measurement selected from the group consisting of: at least one antenna measurement, at least one antenna feedline measurement, at least one transmitter measurement, at least one receiver measurement, and at least one interference measurement.

6. The method of claim 5 wherein said at least one antenna measurement comprises at least one type of measurement data selected from the group consisting of: swept return loss measurement, and distance-to-fault measurement.

7. The method of claim 5 wherein said at least one transmitter measurement comprises at least one type of measurement data selected from the group consisting of: output power measurement, signal quality measurement, and traffic measurement.

8. The method of claim 1 wherein said measurement data for at least one operational parameter comprises at least one type of measurement selected from the group consisting of: temperature measurement, heater alarm, air conditioner alarm, security system alarm, tower light failure alarm, and battery monitor alarm.

9. The method of claim 1 wherein said measurement data for at least one wireless link parameter includes at least one measurement for a receiving antenna of said basestation.

10. The method of claim 1 further comprising:
using a common user interface for accessing said measurement data received by said processor-based device.

11. The method of claim 10 wherein said common user interface comprises a web browser.

12. A basestation monitoring system comprising:

a monitoring probe arranged local to a basestation, said monitoring probe operable to acquire measurement data for at least one network link parameter of said basestation, at least one wireless link parameter of said basestation, and at least one operational parameter of said basestation and format the acquired measurement data into a uniform format, wherein said monitoring probe comprises an interface to a communication network; and

a remote processor-based device arranged remote from said basestation, wherein said remote processor-based device comprises an interface to said communication network.

13. The basestation monitoring system of claim 12 wherein said monitoring probe comprises a controller operable to communicate, in said uniform format, said measurement data for said at least one network link parameter, at least one wireless link parameter, and at least one operational parameter of said basestation to said remote processor-based device via said communication network.

14. The basestation monitoring system of claim 13 wherein said monitoring probe comprises a Smart Transducer Interface Module (STIM) that is communicatively coupled to a Network Capable Application Processor (NCAP).

15. The basestation monitoring system of claim 14 wherein said STIM is capable of acquiring at least one of said measurement data in accordance with IEEE 1451.1 standard and communicate said at least one of said measurement data to said NCAP in accordance with IEEE 1451.2 standard.

16. The basestation monitoring system of claim 12 further comprising:
a common user interface for accessing said measurement data received by said remote processor-based device.

17. The basestation monitoring system of claim 16 wherein said common user interface comprises a web browser.

18. The basestation monitoring system of claim 12 wherein said measurement data for at least one network link parameter comprises at least one type of measurement selected from the group consisting of: at least one T1 measurement, and at least one E1 measurement.

19. The basestation monitoring system of claim 12 wherein said measurement data for at least one wireless link parameter comprises at least one type of measurement selected from the group consisting of: at least one antenna measurement, at least one antenna feedline measurement, at least one transmitter measurement, at least one receiver measurement, and at least one interference measurement.

20. The basestation monitoring system of claim 12 wherein said measurement data for at least one operational parameter comprises at least one type of measurement selected from the group consisting of: temperature measurement, heater alarm, air conditioner alarm, security system alarm, tower light failure alarm, and battery monitor alarm.

21. A basestation monitoring probe comprising:

- at least one module for acquiring measurement data for at least one network link parameter of a basestation;
- at least one module for acquiring measurement data for at least one wireless link parameter of said basestation;
- at least one module for acquiring measurement data for at least one operational parameter of said basestation;
- a controller for formatting the measurement data acquired for said at least one network link parameter, said at least one wireless link parameter, and said at least one operational parameter into a uniform format; and
- an interface to a communication network for communicating, in said uniform format, at least a portion of the acquired measurement data to a remote processor-based system.

22. The basestation monitoring probe of claim 21 wherein said controller is further operable to communicate, in said uniform format, said measurement data for said at least one network link parameter, at least one wireless link parameter, and at least one operational parameter of said basestation to said remote processor-based device via said communication network.

23. The basestation monitoring probe of claim 21 wherein said at least one module for acquiring measurement data comprises a Smart Transducer Interface Module (STIM), and wherein said controller comprises a Network Capable Application Processor (NCAP) that is communicatively coupled to said STIM.

24. The basestation monitoring probe of claim 23 wherein said STIM is capable of acquiring at least one of said measurement data in accordance with IEEE 1451.1 standard and communicate said at least one of said measurement data to said NCAP in accordance with IEEE 1451.2 standard.